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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/086,602  
Filing Date: March 04, 2002  
Appellant(s): CHANG ET AL.

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Alan S. Hodes  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7/21/2008 appealing from the Office action mailed 12/20/2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

There is a related appeal in application no. 10/086268. (Atty. Docket No.: DKTRP003).

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

6,909,708	Krishnaswamy et al.	06-2005
6,310,873	Rainis	10-2001
6,298,057	Guy	10-2001
6,078,582	Curry	06-2000

#### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

1. Claim 20 rejected under 35 U.S.C. 101 because the claimed invention is directed to a data structure of a database that do not fall within any of the four categories of statutory subject matter of 35 U.S.C. § 101. The claimed invention is not limited to a practical application. Viewed as a whole, the claimed invention merely expresses a data base which includes at least one component such as gateway etc... It does not impart any function to the processing system, i.e., the claimed invention is not practical applied. Instead, the claimed invention merely describes a database; so it is clearly not a process because they do not have any limitation to a practical application. The other three § 101 classes of machine, compositions of matter and manufactures can be group as product claims, and the product classes have required physical structure or material. The claimed database does not itself perform any useful concrete and tangible result, i.e., no post solution activity, and thus does not fit within the definition of a machine. In addition, the claimed database is an abstract construct; therefore, the claimed database does not fall within the product classes, machine and composition of matter.
2. Claims 21, 27 and 29-31 rejected under 35 U.S.C. 102(e) as being anticipated by Krishnaswamy (USP 6909708).

Regarding claim 21, Krishnaswamy discloses a communication system comprising a public switched telephone (PST) network (Fig 19F, Ref 1950); an internet protocol (IP) network (Fig 19F, Ref 1910); a plurality of gateway networks (Fig 19F, Ref 1950) coupled to the PST network and the IP network to route a telephone call over the PST network or the IP network; and an enterprise directory server (Fig 19F, Directory is enterprise directory server or Fig 10A, Ref 1, 2, 3) coupled to the plurality of gateway networks, the enterprise directory server comprising an enterprise directory that is a directory of named objects, including users, network devices and network services and having an extensible schema configured to provide data to support routing of telephone calls (Fig 10B, Ref enterprise Directory server 1082, user profile, telephone gateway and email address etc. and Fig 10A, Ref 1-3, selection of an Internet Telephony Gateway 1084, 1081 and 1086 is to embed the information needed to select a gateway in the user profile as stored on a directory server in order to route a telephone call; registration information is gathered from the user, including name, email address, IP Address (for fixed location computers), site code, account code, usual internet access point, and other relevant information. See Col. 106, lines 18-43).

Regarding claim 27, Krishnaswamy discloses the enterprise directory comprises in its extensible schema at least one object selected from a group consisting of: an object configured to represent a GateKeeper; an object configured to represent a Gateway; an object configured to represent a Multipoint Control Unit; an object configured to represent a GateKeeper Exchange; and an object configured to represent communication system user with associated telephony services attributes (Fig 10A, Ref Directory server provides information about gateway or gatekeeper for internet telephony, See Col. 106, lines 18-43).

Regarding claim 29, Krishnaswamy discloses the telephones comprise IP telephones (Fig 10A, 1051).

Regarding claim 30, Krishnaswamy discloses the IP telephones include H.323 compliant telephones (Fig 19).

Regarding claim 31, Krishnaswamy discloses the telephones comprise non-IP telephones including at least one telephone selected from the group consisting of: private branch exchange telephones; and plain old telephones (POTS) (Fig 10A).

3. Claims 22-26 rejected under 35 U.S.C. 103(a) as being unpatentable by Krishnaswamy in view of Guy (USP 6870827).

Regarding claim 22, Krishnaswamy fails to disclose the claimed invention. In the same field of endeavor, Guy discloses each of the plurality of gateway networks comprise a gateway database capable of providing information for routing the telephone call over the IP network, and wherein the gateway database is created from information dredged from the enterprise directory (Col. 10, lines 52-65, a local directory and master directory includes information to route a call).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for synchronizing the databases as disclosed by Guy into the teaching of Krishnaswamy. The motivation would have been to prevent human error.

Regarding claim 23, Krishnaswamy and Guy fails to disclose the claimed invention. in the users of the communication system can make changes to objects in the enterprise directory representing components of the communication system through a web browser coupled to the IP network. However, the examiner take an official notice that a method and system for allowing a

user to interface with a database in order to modify the information is well known and expected in the art at the time of invention was made. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to implement a GUI such web into a database into the system and method of Guy and Krishnaswamy. The motivation would have been reduce the cost of the call.

Regarding claim 24, Guy discloses automatically update the gateway databases to reflect changes in the enterprise directory (Col. 9, lines 10-40).

Regarding claim 25, Guy discloses update the gateway databases when a new gateway network is added to the communication system and information for the new gateway network entered in the enterprise directory server (Col. 9, lines 10-40).

Regarding claim 26, Guy discloses update a gateway database associated with one of the plurality of gateway networks when the gateway network is placed in operation (Col. 9, lines 10-40).

4. Claims 32-37 rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnaswamy in view of Curry (USP 6078582).

Regarding claim 32, Krishnaswamy discloses a method of operating a communication system having a plurality of gateway networks coupled to an internet protocol (IP) network and to a public switched telephone (PST) network to route a telephone call over the IP network, the method comprising steps of providing a directory server comprising an enterprise directory that is a directory of named objects, including users, network devices and network services and having an extensible schema configured to provide data to support routing of telephone calls (Fig 10A, Ref 1, 2, 3). However, Krishnaswamy fails to disclose accessing the directory server,

including accessing the extensible schema of the enterprise directory, to create a plurality of gateway databases, each gateway database associated with one of the plurality of gateway networks and each gateway database comprising a list of telephone numbers that each of the plurality of gateway networks will accept; connecting a user to one of the plurality of gateway networks via a calling telephone; accepting a telephone number entered by the user; accessing the gateway database associated with the gateway network to determine which of the plurality of gateway networks will accept the telephone number entered by the user; and routing the telephone call from the calling telephone over the IP network. In the same field of endeavor, Curry discloses a method and system for accessing the extensible schema of the enterprise directory (Fig 6, Ref 80), to create a plurality of gateway databases (Fig 7, Ref 120), each gateway database associated with one of the plurality of gateway networks (Fig 7, Ref 120) and each gateway database comprising a list of telephone numbers that each of the plurality of gateway networks will accept (Fig 10A); connecting a user to one of the plurality of gateway networks via a calling telephone (Fig 6, Ref 64); accepting a telephone number entered by the user (Fig 9A, Ref 120); accessing the gateway database associated with the gateway network to determine which of the plurality of gateway networks will accept the telephone number entered by the user (Fig 9A, Ref 124-18); and routing the telephone call from the calling telephone over the IP network (Fig 9A, Ref 130).

Since, a method and system for creating a database based on a database being well-known. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for using a database to create the local database gateway for using to route the incoming call to the destination as disclosed by Curry



into the system of Krishnaswamy. The motivation would have been to turn the internet into a multimedia network in order to reduce the cost of telephone call.

Regarding claim 33, Curry discloses the step of providing a directory server comprises the steps of coupling the enterprise directory having the extensible schema to the IP network, wherein the schema of the enterprise directory is extended with objects representing components of the communication system to create the directory server (Fig 10 and Fig 6, Ref 80).

Regarding claim 34, Curry discloses the step of providing a directory server comprises the steps of designating one of the plurality of gateway databases as a master database (Fig 6, Ref 80 is a master database for gateway); designating the remaining gateway databases as slave databases (Fig 7, Ref 120 is slave database of each gateway); and creating within a schema of the master database objects representing components of the communication system to create the directory server (Fig 6, Ref 80 implicitly discloses the master database objects that used to create database for directory server).

Regarding claims 35-37, Krishnaswamy and Curry fail to disclose the step of providing a directory server further comprises the steps of accessing a company database coupled to the IP network; and copying the company database to a master database; accessing the enterprise directory server to provide a company white pages comprising lists of users and telephone numbers and the step of providing a company white pages comprises the step of providing company white pages in which the telephone numbers depend on a location from which the company white pages is accessed. However, the examiner takes an official notice that a method for copying a database into another database and provide a white page that includes the

telephone numbers and users depend on a location from which the company white pages is accessed are well known and expected in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to copy a database into another database and provide a white or yellow page with telephone number and user depending on the location of the accessed user into the teaching of Curry and Krishnaswamy. The motivation would have been to save time and reduce human errors.

5. Claims 20 and 38 rejected under 35 U.S.C. 103(a) as being unpatentable by Krishnaswamy in view of Rainis (USP 6310873).

Regarding claim 20, Krishnaswamy discloses an article of manufacture including at least one tangible medium having an enterprise directory configured for IP telephony embodied thereon, the article of manufacture comprising enterprise directory embodied on the at least one tangible medium, wherein the enterprise directory is a directory of named objects, including users, network devices and network services (Fig 10B, Ref Directory server 1082, user profile, telephone gateway and email address etc. and Fig 10A, Ref 1-3); wherein a schema of the enterprise directory includes at least one object for representing a component of an IP telephony system, the component selected from a group consisting of: a GateKeeper; a Gateway; a Multipoint Control Unit (MCU); a GateKeeper Exchange; and a user with associated telephony service attributes (Fig 10A, Ref Directory server provides information about gateway or gatekeeper for internet telephony). However, Krishnaswamy does not disclose X.500-compatible. In the same field of endeavor, Rainis discloses LDAP to be used to create a directory server (Fig 3, Ref 64).

Since, LDAP is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method and system for storing the information into a database which is compatibly with x.500 such as LDAP as disclosed by Rainis into the teaching of Krishnaswamy. The motivation would have been to turn the internet into a multimedia network in order to reduce the cost of telephone call.

Regarding claim 38, Krishnaswamy discloses a communication system comprising a public switched telephone (PST) network; an internet protocol (IP) network; a plurality of voice gateways coupled to the PST network and the IP network, each of the plurality of voice gateways configured to route a telephone call over the PST network or the IP network (Fig 10A); and general purpose enterprise directory services comprising a distributed network of directory servers coupled to the plurality of voice gateways, the directory services comprising an enterprise directory that is a directory of named objects, including users, network devices and network services and having an extensible schema configured to provide data to support routing of telephone calls and configured to provide data to support routing of telephone calls over the IP network including having an extensible schema including at least one IP telephony object selected from a group consisting of an object configured to represent a GateKeeper; an object configured to represent a Gateway; an object configured to represent a Multipoint Control Unit; an object configured to represent a GateKeeper Exchange; and an object configured to represent communication system user with associated IP telephony services attributes (Fig 10A, Ref Directory server provides information about gateway or gatekeeper for internet telephony). However, Krishnaswamy fails to disclose the enterprise directory services comprise a single point of entry is provided for making additions, changes and deletions of the IP telephony objects

by making additions, changes and deletions in the schema of the enterprise directory services. However, In the same field of endeavor, Rainis discloses a directory providing adding and deleting the gateway address (col. 5, lines 25-38 and col. 11, lines 54-65, Fig 3, Ref 64 is selected ).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method for adding, deleting and changing information from LDAP server having the gateway addresses as disclosed by Rainis into the system of Krishnaswamy. The motivation would have been to turn the internet into a multimedia network in order to reduce the cost of telephone call.

#### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

In the appeal brief, the appellant states that claim 20, as indicated in Ground I, is statutory because the claimed format has a functional significance. In reply, the examiner disagrees with the applicant because claim 20 is simply claiming a database with structure including fields containing values, such as addresses of the devices etc.... It does not contain functional descriptive material that is capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In the appeal brief, the appellant states that Krishnaswamy does not disclose an enterprise directory is a directory of named objects including users, network device and network services with an extensive schema to provide data to support routing of telephone calls by using the information that do not disclose in the specification such as "T. Howes and M.

Smith, LDAP: Programming Directory Enabled Applications with Lightweight Directory Access Protocol. Macmillan Technology Series, 1997.", USP 6,016,499 and "The SLAPD and SLURPD Administrator's Guide, University of Michigan, 30 April 1996, Release 3.3." as indicated in Ground II, II and IV. In reply, the examiner disagrees with the applicant that Krishnaswamy discloses a database includes a directory of named objects including users, network device and network services. In reply, Krishnaswamy discloses a directory server "database" including a directory of named objects including users, network device and network services (selection of **an Internet Telephony Gateway 1084, 1081 and 1086** is to embed the information needed to select a gateway in the user profile as stored on a directory server in order to route a telephone call; registration information is gathered from the user, including **name, email address, IP Address** (for fixed location computers), site code, account code, usual internet access point, and other relevant information. Once this information is entered by the user, the software package deposits the information on a directory server, within the user's profile, See Col. 106, lines 18-43). Therefore, the database of Krishnaswamy discloses the enterprise directory "database" of the claimed invention because the applicant's arguments are based on information that do not disclose in the specification.

In the appeal brief, the appellant states that the references fail to show certain features of applicant's invention as indicated in Ground II, III and IV, it is noted that the features upon which applicant relies (i.e., the description of T. Howes and M. Smith, LDAP: Programming Directory Enabled Applications with Lightweight Directory Access Protocol. Macmillan Technology Series, 1997.", USP 6,016,499 and "The SLAPD and SLURPD Administrator's Guide, University of Michigan, 30 April 1996, Release 3.3."; "the alternative embodiments of

the gateway network of the invention may include other database configures”, “database designated the master database” or Paragraph [0092] and [0093]) are not recited in the rejected claim(s) or in the specification. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In the appeal brief, the applicant states that states that Krishnaswamy does not disclose an enterprise directory is a directory of named objects including users, network device and network services with an extensive schema to provide data to support routing of telephone calls by using the information that do not disclose in the specification such as "T. Howes and M. Smith, LDAP: Programming Directory Enabled Applications with Lightweight Directory Access Protocol. Macmillan Technology Series, 1997.", USP 6,016,499 and "The SLAPD and SLURPD Administrator's Guide, University of Michigan, 30 April 1996, Release 3.3." as indicated in Ground II, II and IV. In reply, the examiner disagrees with the applicant that Krishnaswamy discloses a database includes a directory of named objects including users, network device and network services. In reply, Krishnaswamy discloses a directory server “database” including a directory of named objects including users, network device and network services (selection of **an Internet Telephony Gateway 1084, 1081 and 1086** is to embed the information needed to select a gateway in the user profile as stored on a directory server in order to route a telephone call; registration information is gathered from the user, including **name, email address, IP Address** (for fixed location computers), site code, account code, usual internet access point, and other relevant information. Once this information is entered by the user, the software package deposits the information on a directory server, within the user's profile, See Col. 106, lines 18-

43). Therefore, the database of Krishnaswamy discloses the enterprise directory "database" of the claimed invention because the applicant's arguments are based on information that do not disclose in the specification.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5

USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Krishnaswamy discloses a directory database which includes a directory of named objects including users, network device and network services with an extensive schema to provide data to support routing of telephone calls and Rainis discloses LDAP to be used to create a directory server and a directory providing adding and deleting the gateway address (col. 5, lines 25-38 and col. 11, lines 54-65, Fig 3, Ref 64 is selected ). Because a method and system for entering the information such as users, network device and network services into database and changing, adding and deleting a entry by a single point entry are well known and expected in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply a method for adding, deleting and changing information from LDAP server having the gateway addresses as disclosed by Rainis into the system of Krishnaswamy. The motivation would have been to turn the internet into a multimedia network in order to reduce the cost of telephone call. Therefore, **Krishnaswamy's database is equivalent to the claimed enterprise directory "database".**

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Steven Nguyen

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